

## REMARKS

Claims 1- 20 were originally filed in the parent application Ser. No. 09/928,769. New claims 21-22 were added in a response to the first office action dated July 2, 2002. In a Request for Continuing Examination, claims 23-48 were added. Claims 31-48 were subject to a Restriction requirement. The parent application has been allowed.

In the present application (filed as a divisional application), claims 1-20 of the parent application have been canceled and new claims 21-38 have been added. The new claims are substantially claims 31-48 of the parent application that were subject to a restriction requirement. All amendments made to the specification herein were also made in the parent application and entered by the Examiner.

New independent claim 21 includes a limitation of determining horizontal and vertical permeabilities that have a ratio different from a ratio of the vertical and horizontal resistivities. The horizontal and vertical permeabilities given by eqns (27) - (28) are a complicated function of the horizontal and vertical resistivities. There is no reason to expect that the permeability anisotropy ratio (ratio of horizontal and vertical permeabilities) be the same as the resistivity anisotropy ratio. This is borne out by examples given in the specification in paragraphs [0065] - [0066], and specifically in Table I. Reasons for the difference are discussed in paragraph [0066]. It should further be pointed out that equation (14) of the *Klein* reference (the closest reference cited by the Examiner in the parent application) gives a permeability anisotropy ratio that is the same

as the resistivity anisotropy ratio.

For these reasons, Applicant respectfully submits that claim 21 and claims 22- 38 that depend upon claim 21 are also patentable under 35 §§ 102-103 over *Klein* and the prior art of record.

The Commissioner is authorized to charge any fees for these amendments to  
**Deposit Account 02--0429 (584-23131-US-D1).**

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Respectfully submitted,



David A. Walker, Reg. No. 52,334  
Kaushik P. Sriram, Reg. No. 43,140  
Madan, Mossman & Sriram, PC  
2603 Augusta Suite 700  
Houston, Texas 77057-5638  
Tel: (713) 266-1130 x 121  
Fax: (713) 266-8510  
Attorney For Applicants